

## Wilburn Eugene Reddick, Ph.D.

St. Jude Children's Research Hospital  
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### 1. Current Position at St. Jude

Member 2014 – present  
Department of Diagnostic Imaging  
St. Jude Children's Research Hospital  
Memphis, TN 38105

### 2. Education and Training

B.S.E.E. Memphis State University, Memphis, TN (Electrical Engineering) 1987  
M.S. Memphis State University, Memphis, TN (Electrical Engineering) 1988  
Ph.D. Memphis State University, Memphis, TN (Electrical Engineering) 1991

### 3. Professional Career

Scientific Programmer, Diagnostic Imaging Department, 1991-92  
St. Jude Children's Research Hospital,  
Memphis, TN

Systems/Software Engineer, Diagnostic Imaging Department, 1992-99  
St. Jude Children's Research Hospital,  
Memphis, TN

Adjunct Faculty, 1993-present  
Department of Electrical and Computer Engineering and  
Department of Biomedical Engineering,  
The University of Memphis,  
Memphis, TN

Assistant Member, 1999-2005  
Division of Translational Imaging Research,  
Department of Radiological Sciences,  
St. Jude Children's Research Hospital,  
Memphis, TN

Associate Member, 2005-2014  
Division of Translational Imaging Research,  
Department of Radiological Sciences,  
St. Jude Children's Research Hospital,  
Memphis, TN

Member, 2014-present  
Department of Diagnostic Imaging,  
St. Jude Children's Research Hospital,  
Memphis, TN

Interim Chief, Research Section 2022-present  
Department of Diagnostic Imaging,  
St. Jude Children's Research Hospital,  
Memphis, TN

#### 4. Professional Memberships

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|--|---------------|
| International Society of Magnetic Resonance in Medicine (ISMRM)  | 1992-present  |
| Chair – Therapeutic Response Session, Workshop on MR in Experimental and Clinical Cancer Research, November 13-15, St. Louis, MO | 1998          |
| Abstract Reviewer – ISMRM Annual Scientific Meeting  | 2001- present |
| Secretary – MR of Cancer Study Group   | 2003-05       |
| Organizing Committee –Workshop on Advances in Experimental and Clinical MR in Cancer Research, October 15-18, Manchester, UK     | 2003-04       |
| Ad Hoc Committee on Standards in Quantitative MR   | 2010-18       |
| Moderator – Pediatric Head to Toe Session, ISMRM Annual Scientific Meeting   | 2020          |
| Poster Facilitator – Pediatrics: Body Topics, ISMRM Annual Scientific Meeting  | 2021          |
| Institute of Electrical and Electronics Engineers (IEEE)   | 1993-present  |
| Elected as Senior Member   | 2006          |
| Student Poster Judge – Memphis Biomedical Imaging Symposium  | 2007-2011     |
| American Society of Clinical Oncology (ASCO) – Active-Allied Member  | 2007-present  |
| Organization for Human Brain Mapping (OHBM)  | 2012-present  |
| Abstract Reviewer – OHBM Annual Scientific Meeting   | 2013-present  |
| Children's Oncology Group  | 2014-present  |

#### 5. Editorial Board Appointments

Journal Reviewer:

Lancet, Lancet Child & Adolescent, Journal of Clinical Oncology, Brain, Cancer, Clinical Cancer Research, Pediatric Blood & Cancer, Neuro-Oncology, J Neuro-Oncology, Acta Oncologica, Brain Imaging and Behavior, BMC Pediatrics, Developmental Neurorehabilitation, Magnetic Resonance Imaging, Journal of Magnetic Resonance Imaging, Magnetic Resonance Materials in Physics, Biology and Medicine (MAGMA), Academic Radiology, IEEE Transactions on Nuclear Science, Medical Physics, NeuroImage Clinical, American Journal of Neuroradiology, Neuroradiology

#### 6. Grant Review / Study Activities

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|---|---------|
| Invited Observer – Dynamic Contrast Enhancement Magnetic Resonance Imaging Workshop, <b>National Cancer Institute</b> , October 28-29, Bethesda, MD           | 1999    |
| P01 Program Project Review – <b>National Cancer Institute</b> , Study Section   | 2000-02 |
| Invited Participant – Promising Cancer Imaging Investigators Workshop, Cancer Imaging Program, <b>National Cancer Institute</b> , October 23-24, Bethesda, MD | 2003    |
| Invited Participant – VEGF Trap DCE-MRI Expert Consensus Meeting, <b>Aventis Pharmaceuticals</b> , August 23-24, New York, NY                                 | 2004    |
| Research Grant Review – <b>Dutch Cancer Society</b>   | 2006    |
| Invited Participant – Pediatric Oncology Imaging Frontiers Workshop, Cancer Imaging Program, <b>National Cancer Institute</b> , October 23-24, Washington, DC | 2006    |
| Research Grant Review – <b>Diabetes UK</b>  | 2007    |
| U01 Review – “Quantitative Imaging Network” – <b>National Cancer Institute</b> , Study Section  | 2009-10 |
| R01 Review – “Early detection and prevention of mild cognitive impairment” – <b>National Institute of Nursing Research</b> , Study Section                    | 2012    |
| R03/R21 Review – “Cancer Detection” – <b>National Cancer Institute</b> , Study Section  | 2012    |
| R01 Review – “Developmental Brain Disorders” – <b>National Institutes of Health</b> , Study Section   | 2013    |
| R44 Review – “SBIR Phase IIB: Bridge Awards to Accelerate the Development of Commercialization” – <b>National Cancer Institute</b> , Study Section            | 2013    |
| POGO Research Fellowship Program – Application Reviewer   | 2014    |
| F/K awards – Review of fellowship and post doctoral training applications – <b>National Institute of Health</b> , Study Section                               | 2014    |
| P41 Review – Site visit for Biomedical Technology Resource Center – <b>National Institute of Biomedical Imaging and Bioengineering</b> , Study Section        | 2014    |
| Research Grant Review – <b>Dutch Cancer Society</b>   | 2015    |
| K99 Review – NIH Pathway to Independence (PI) Award– <b>National Institute of Health</b> , Study Section  | 2016-17 |
| R01 Review – MEDI Study Section – <b>National Institutes of Health</b>  | 2017    |
| R03/R21 Review – Clinical and Translational – <b>National Cancer Institute</b> , Study Section  | 2020    |
| R03/R21 Review – Clinical and Translational Cancer Research – <b>National Cancer Institute</b>  | 2021    |
| R01 Review - Neuropathophysiology of Decision Making and Chemobrain - <b>National Cancer</b>  | 2022    |

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| <b>Institute</b> , Special Emphases Panel  |      |
| R03/R21 Review – Clinical and Translational Cancer Research – <b>National Cancer Institute</b> | 2022 |
| R03/R21 Review – Clinical and Translational Cancer Research – <b>National Cancer Institute</b> | 2023 |

## 7. Institutional and Committee Assignments

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| Member – Medical Records Committee   | 1993-94      |
| Member – PACS Selection Committee  | 1999-00      |
| Member – Hartwell Center Liaison Group (Bioinformatics and Biotechnology)          | 2000-03      |
| Member – Network Structure and Operating Systems subgroup, ITS Oversight Committee | 2001-03      |
| Member/Vice-Chair (2002-03) – Library Committee                                    | 2001-03      |
| Member/Chair (2020-present) – Diagnostic Imaging Protocol Review Committee         | 2008-present |
| Member – Institutional Review Board  | 2010-present |

## 8. Formal Education / Teaching Activities

The University of Memphis, Department of Electrical and Computer Engineering, Memphis, TN.

### Courses Taught:

|                    |                           |         |
|--------------------|---------------------------|---------|
| Circuit Analysis I | - Undergraduate ELEC 2201 | 1988-89 |
| Electronics I      | - Undergraduate ELEC 3211 | 1989    |
| EM Field Theory I  | - Undergraduate ELEC 3240 | 1990    |
| Elec Engr / Instr. | - Undergraduate ELEC 2283 | 1996    |
| C Programming      | - Undergraduate ELEC 1207 | 1998    |

### Advisory Positions:

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|---|--------------|
| Appointed to Department of Electrical and Computer Engineering Advisory Board | 2009-present |
| Appointed to Executive Committee  | 2013-present |
| Appointed to Department of Biomedical Engineering Advisory Board              | 2021-present |

### M.S. Thesis:

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|---|------|
| Jinyu Sun – “Self-organized classification and segmentation of magnetic resonance images”.<br>Department of Electrical Engineering, The University of Memphis, Memphis, TN.                       | 1994 |
| Li Tang – “Fractal feature analysis and classification in magnetic resonance images”.<br>Department of Electrical Engineering, The University of Memphis, Memphis, TN.                            | 1994 |
| SiHong Wang – “A pharmacokinetic model to assess the MR contrast agent delivery in osteosarcoma”. Department of Biomedical Engineering, The University of Memphis, Memphis, TN.                   | 1996 |
| Richard Candell, Jr. – “Segmentation of magnetic resonance spectroscopy profiles using neural networks”. Department of Electrical Engineering, The University of Memphis, Memphis, TN.            | 1996 |
| John O. Glass – “Segmentation and classification of quantitative T1 images using artificial neural networks”. Department of Electrical Engineering, The University of Memphis, Memphis, TN.       | 1998 |
| Sohana Tanzeem – “3D Quantitative Brain Tumor Growth Model Based on Cell Proliferation and Diffusion”. Department of Electrical and Computer Engineering, The University of Memphis, Memphis, TN. | 2009 |
| Fahmida Kishowara – “Diffusion tensor imaging based tractography of human brain fiber Bundles”. Department of Electrical and Computer Engineering, The University of Tennessee, Memphis, TN.      | 2015 |

### Ph.D. Dissertation:

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|---|------|
| Shawna L. Palmer – “Neuroanatomical substrates of sustained attention among pediatric patients with medulloblastoma”. Department of Psychology, The University of Memphis, Memphis, TN. | 2001 |
| Jim Moore – “Unsupervised learning to reduce/eliminate observer variability in  | 2004 |

semi-automated segmentation and classification”. Department of Computer and Electrical Engineering, The University of Memphis, Memphis, TN.

|   |      |
|---|------|
| Yong Zhang – “Improved spatial normalization for functional imaging in patients surviving posterior fossa brain tumor.” Department of Biomedical Engineering, The University of Tennessee, Memphis, TN.   | 2006 |
| Nicholas S. Phillips – “Diffusion Tensor Imaging in Pediatric Brain Tumor Patients”. Department of Biomedical Engineering, The University of Tennessee, Memphis, TN.  | 2009 |
| Teddy Salan – “Fiberblender: A realistic computer model of nerve bundles for simulating and validating the acquisition of diffusion tensor imaging”. Department of Electrical and Computer Engineering, The University of Memphis, Memphis, TN. | 2017 |
| Rakib Al-Fahad – “Multivariate modeling of cognitive performance and categorical perception from neuroimaging data”. Department of Electrical and Computer Engineering, The University of Memphis, Memphis, TN.                                 | 2020 |

Post Doctoral Fellowship:

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| Shawna L. Palmer, Ph.D. – Focus on neuroanatomical substrates of neurocognitive deficits in children treated for medulloblastoma.                          | 2001-03 |
| Jennifer R Pryweller, Ph.D. – Focus on structural connectome analysis of children treated for ALL.   | 2013-16 |
| Hadi Hosseini, Ph.D. – Mentoring Committee for PostDoc in Biostatistics with focus on deep neural networks for registration and classification of imaging  | 2020-21 |
| Kellan Gandy, Ph.D. – Mentoring Committee for PostDoc in Epidemiology and Cancer Control with research focusing on imaging, neurocognition, and genetics   | 2020-22 |
| Xiaoqing Wang, Ph.D. – Mentoring Committee for PostDoc in Biostatistics with focus on high dimensional mediational models of imaging and clinical outcomes | 2020-22 |

Mentoring of Junior Faculty:

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| Zuyao Y. Shan, Ph.D. – Recruited as Research Associate specializing in medical image processing. Promoted to Assistant Member.           | 2003-11 |
| John T. Lucas Jr., M.S., M.D. – Mentoring Committee for junior faculty member in Radiation Oncology with research focusing on radiomics. | 2018-21 |
| Puneet Bagga, Ph.D. – Mentoring Committee for junior faculty member in Diagnostic Imaging with research focusing on metabolic imaging.   | 2020-22 |

## 9. Patents

U.S. Patent No. 9,378,548 granted June 28, 2016 for “T2 Spectral Analysis for Myelin Water Imaging” Junyu Guo and **Wilburn E Reddick**

Provisional U.S. Patent Application No. 62,252,699 filed November 9, 2015 for “Phase Cycled Magnetic Resonance Spectroscopic Imaging” Junyu Guo and **Wilburn E Reddick**

## 10. Grant Awards

ACTIVE (Total: 13% effort)

NCI R01 CA215405-05 (KRULL) – “Sleep Apnea in Survivors of Childhood Cancer Treated with Thoracic Radiation”; 7/1/2017 - 6/30/2023; (**Co-Investigator, 5% effort; Annual Award \$497,291**) – To compare the frequency of OSA in adult survivors of childhood cancer treated with thoracic radiation compared to community controls. To identify specific therapeutic factors associated with OSA in adult survivors of childhood cancer treated with thoracic radiation. To identify biomarkers of OSA in adult survivors of childhood cancer treated with thoracic radiation. To examine associations between OSA and cardiac morbidity and brain integrity.

V Foundation (KRULL) – “Cerebrospinal Fluid Biomarkers of Long-Term Neurocognitive and Brain Imaging Adverse Outcomes in Survivors of Childhood Lymphoblastic Leukemia Treated with Chemotherapy”; 2/1/2019 -

1/31/2023; **(Co-Investigator, effort (3%); Annual Award \$220,000)** - To identify proteins that change in concentration within the cerebrospinal fluid from diagnosis (pre-treatment) through consolidation (following intrathecal and high dose intravenous methotrexate) in children undergoing chemotherapy treatment for acute lymphoblastic leukemia. To examine associations between changes in specific cerebrospinal fluid proteins and demographics, disease characteristics, treatment exposures, and treatment-related adverse events (i.e. neurotoxicity) during therapy.

NCI R01 CA239630-01 (BRINKMAN) – “Neurostimulation in Adult Survivors of Childhood Leukemia”; 4/1/2019 - 3/31/2024; **(Co-Investigator, 5% effort; Annual Award \$437,915)** – To evaluate the efficacy of home-based transcranial direct current stimulation (tDCS) paired with remote cognitive training on direct testing of executive function in survivors of ALL; to evaluate the efficacy of home-based transcranial direct current stimulation (tDCS) paired with remote cognitive training on patient-reported symptoms of executive dysfunction in survivors of ALL.

#### PENDING

NCI R21 CA22021 (Li /Li) – “Identifying voxel-wise neuroimaging mediators between radiation therapy and neurocognitive outcomes in pediatric brain studies via longitudinal high dimensional medication model”; 04/01/2023 - 3/30/2025; **(Co- Investigator)** – Study will 1) develop a longitudinal high-dimensional statistical mediation model to identify voxel-wise WM microstructure damage that mediates treatment effect on longitudinal neurocognitive outcomes, 2) develop a functional high-dimensional mediation model to identify voxel-wise WM microstructural changes that mediate the treatment effect on neurocognitive trajectories and 3) develop a statistical package to facilitate the use of the models. **Submitted June 16, 2022.**

NCI R35 Outstanding Investigator Award (KRULL) – “Cognitive Outcomes in Aging Survivors of Childhood Leukemia”; 07/01/2022 - 06/30/2029; **(Co Investigator, 15% effort)** – Study characterize and understand decline in neurocognitive function over time in aging adult survivors of childhood cancer (i.e. is decline during adulthood a function of deterioration in chronic health conditions, health behaviors, and/or an index of accelerated cognitive aging). **JIT March, 2022**

#### Completed

NCI R01 CA187079-NCE (CONKLIN) – “Prophylactic Multimodal Cognitive Intervention for Children with Medulloblastoma”; 7/01/2017 - 6/30/2022; **(Co-Investigator, 10% effort)** – The primary aim of this study is to test the efficacy of a prophylactically administered computerized working memory intervention among patients with newly diagnosed medulloblastoma. Secondly, we will compare the cognitive impact of a computerized working memory intervention administered in conjunction with an aerobic exercise intervention relative to either intervention alone, and use fMRI to examine neuroplasticity associated with working memory training.

CONQUER CANCER FOUNDATION Career Development Award (ACHARYA) – “Shifting the radiation planning paradigm to preserve neurocognition in children”; 7/1/2020 - 12/30/2021; **(Co-Investigator, 2% effort)** - Determine the substructure dose/volume parameters that are associated with: (1) long-term neurocognitive outcomes and (2) longitudinal substructure volumetric changes post-RT in children with brain tumors. Test the efficacy of hippocampal-avoidance proton therapy to preserve neurocognition at 6 months and 1 year after proton therapy in children with low-grade glioma through a prospective phase II study.

NCI R01 CA174794 (KRULL) – “Brain Integrity in Survivors of Childhood Cancer Treated with Thoracic Radiation”; 04/01/2013 - 03/31/2019; **(Co-Investigator, 5% effort)** – To evaluate brain integrity in adult survivors of childhood cancer treated with thoracic radiation therapy, identify therapeutic factors associated with brain integrity in adult survivors at risk for cardiac and pulmonary morbidity, to examine associations between cardiac, vascular and pulmonary health and brain integrity in those survivors.

NCI R01 CA90246 (REDDICK) – “ALL therapy and developing brains: MRI measures, genetic factors and cognition”; 07/27/2011 – 05/31/2017; **(Principal Investigator, 20% effort)** – Major goals are to establish that genetic polymorphisms in the folate pathway result in: 1) myelin disruption post high-dose methotrexate, 2) altered rates of cortical thinning in frontal cortex over the course of therapy, and 3) less efficient functional networks resulting in decreased efficiency during a working memory task. Overall goal is to establish early during ALL therapy a genetic and neuroimaging basis for identifying patients at greatest risk of developing later neurocognitive deficits.

- NIMH R01 MH085849 (KRULL) – “Risk of Neurocognitive Impairment in Long-Term Survivors of Pediatric Leukemia”; 02/05/2010-12/31/2014; **(Co-Investigator, 10% effort)** – To evaluate the association between changes in basic cognitive and behavioral functioning by the end of chemotherapy treatment, and the later development of higher order executive functions in pediatric ALL. To evaluate the association between acute treatment-related changes in brain integrity and subsequent brain maturation in long-term survivors of pediatric ALL. To evaluate the association between patterns of behavioral and executive dysfunction and brain maturation in long-term survivors of pediatric ALL.
- NCI R21CA138988 (ARMSTRONG) – “Long-term Treatment Related CNS Injury in Survivors of Childhood Cancer”; 07/01/2010-06/30/2012; **(Co-Investigator, 5% effort)** – The primary objectives are to 1) determine the prevalence of long-term memory deficits among adult survivors of childhood ALL treated with cranial radiotherapy now more than 15 years from diagnosis and 2) identify change in cognitive function since the time of the last post-therapy examination among adult survivors of childhood ALL treated with cranial radiotherapy now more than 11 years from previous examination.
- NCI P01 CA23099 (DAVIDOFF) – “Preclinical studies of angiogenesis inhibitors in pediatric solid tumors”; 09/18/2007-07/31/2013; **(Co-Investigator, 5% effort)** – The primary objective is to conduct comprehensive and integrated preclinical studies of imaging, pharmacokinetic, pharmacodynamic, and molecular effects of angiogenesis inhibitors in relevant models of pediatric solid tumors.
- ARRA S10 RR029005 HEI (OGG) – “MRI Scanner (3T) for Research in Catastrophic Diseases of Childhood”; 05/20/2010-05/19/2011; **(Co-Investigator, 5% effort)** – A high-end instrumentation grant is requested to purchase a research-dedicated 3.0 T Siemens Verio MRI scanner for human translational and clinical imaging research at St. Jude Children’s Research Hospital.
- NCI R21 CA131616 (CONKLIN) – “Working memory performance among childhood brain tumor survivors”; 07/01/2008-06/30/2010; **(Co-Investigator, 5% effort)** – The primary objective is to assess the working memory performance of childhood brain tumor survivors relative to health siblings in order to identify a specific cognitive process that underlies the observed decline on global cognitive measures. Investigate the relationship between polymorphisms of the COMT gene and working memory performance.
- NHLBI U54 HL70590 – “Central Nervous System Assessment Core”; 07/01/2003-03/31/2008; **(Co-Investigator, 10% effort)** – Central Nervous System (CNS) Assessment Core provides image processing and analysis support for Comprehensive Sickle Cell Center.
- NCI R01 CA90246 – “Quantitative MR measure of MTX neurotoxicity in children”; 02/01/02 - 02/31/07 (EXT); **(Principal Investigator, 45% effort)** – The primary objective of this project is to use quantitative MR measures to test the hypotheses relating occurrence and severity of leukoencephalopathy with intensity of MTX therapy and resulting neurocognitive impact in children treated with ALL.
- Thrasher Research Fund – “A Quantitative Tool for Analysis of Brain Structures Optimized to Aid in the Treatment of Childhood Brain Tumors”; 12/01/04-11/30/06; **(Co-Principal Investigator / Mentor, 5% effort)** – The goal of the proposed project is to develop and optimize an automatic method for quantitatively analyzing brain structures on MR brain images of children with brain tumors.
- NCI R01 CA78957 – “Learning Impairments Among Survivors of Childhood Cancer”; 07/01/99 - 04/30/04 (EXT); **(Co-Principal Investigator, 10% effort)** – The major goals of this project are to establish MRI correlation with learning impairments and to establish response of learning impairments to methylphenidate.
- NCI U01 CA81445 – “Pediatric Brain Tumor Consortium”; 04/01/99 - 03/31/04; **(Co-Investigator, 5% effort)** – The major goal of this project is to fund a clinical research group dedicated to novel phase I, II, and pilot studies in childhood brain tumors.
- NHLBI R01 HL60022 – “Diffuse Brain Abnormality in Sickle Cell Disease”; 07/01/99 - 06/30/03; **(Co-Investigator, 10% effort)** – To determine whether novel methods of quantitative MR imaging provide a sensitive and clinically-relevant indicator of diffuse brain injury in children with sickle cell disease.
- Mass Bay Area Neurofibromatosis, Inc – “Neuroanatomical Substrates of Cognitive Deficits”; 10/1/98 - 9/30/99; **(Co-Investigator, 15% effort)** – The major goals of this project were to obtain data on brain abnormalities detectable by novel MR methods in a representative population of children with NF1, and to explore the correlation of detected abnormalities with visual and cognitive function.

## 11. Publication Record (ORCID 0000-0002-1054-1201 ResearcherID G-8763-2018)

A. **Peer Reviewed Publications** (first or co-first authors are underlined; # indicates senior or co-senior author; ^ indicates corresponding or co-corresponding author)

### i. Original Research Articles (118)

1. Reddick WE<sup>^</sup>. Automated spatial filter optimization using frequency domain simulated annealing. *Optical Engineering* 31(1):82-87, 1992.
2. Hanna SL, **Reddick WE**, Parham DM, Gronemeyer SA, Taylor JS, Fletcher BD. Automated pixel-by-pixel mapping of dynamic contrast-enhanced MR images: preliminary results. *J Magn Reson Imaging* 3(6):849-853, 1993.
3. Reddick WE<sup>^</sup>, Langston JW, Meyer WH, Gronemeyer SA, Steen RG, Chen G, Taylor JS. Discrete signal processing of dynamic contrast-enhanced magnetic resonance images: statistical validation and preliminary clinical applications. *J Magn Reson Imaging* 4(3):397-404, 1994.
4. Steen RG, Gronemeyer SA, Kingsley PB, **Reddick WE**, Langston JS, Taylor JS. Precise and accurate measurement of proton T1 in human brain *in vivo*: validation and preliminary clinical application. *J Magn Reson Imaging* 4(5):681-691, 1994.
5. Reddick WE<sup>^</sup>, Bhargava R, Taylor JS, Meyer WH, Fletcher BD. Dynamic contrast-enhanced MR imaging evaluation of osteosarcoma response to neoadjuvant chemotherapy. *J Magn Reson Imaging* 5(6):689-694, 1995.
6. Murry DJ, Crom WR, **Reddick WE**, Bhargava R, Evans WE. Liver volume as a determinate of drug clearance in children and adolescents. *Drug Metabolism and Disposition* 23(10):1110-1116, 1995.
7. Reddick WE<sup>^</sup>, Ogg RJ, Steen RG, Taylor JS. Statistical error mapping for reliable quantitative T1 imaging. *J Magn Reson Imaging* 6(1):244-249, 1996.
8. Steen RG, Langston JW, **Reddick WE**, Chen G, Wang SC. Quantitative magnetic resonance imaging (qMRI) of children with sickle cell disease: striking T1 elevation in thalamus in the absence of abnormality seen by conventional MRI. *J Magn Reson Imaging* 6(1):226-234, 1996.
9. Taylor JS, Langston JW, **Reddick WE**, Kingsley PB, Ogg RJ, Pui MH, Kun LE, Jenkins JJ, Chen G, Ochs J, Sanford RA, Heideman RL. Clinical value of proton MR spectroscopy for differentiation of recurrent or residual brain tumor from delayed cerebral necrosis. *Int J Rad Onc Biol Phys* 36(5):1251-1261, 1996.
10. Fletcher BD, **Reddick WE**, Taylor JS. Dynamic magnetic resonance imaging of musculoskeletal neoplasms. *Radiology* 200(3):869-872, 1996.
11. Steen RG, Ogg RJ, **Reddick WE**, Kingsley PB. Age-related changes in the pediatric brain: quantitative MR evidence of maturational changes during adolescence. *Am J Neuroradiol* 18(5):819-828, 1997.
12. Cho S, Jones D, **Reddick WE**, Ogg RJ, Steen RG. Establishing norms for age-related changes in proton T1 of human brain tissue *in vivo*. *Magn Reson Imaging* 15(10):1133-1143, 1997.
13. Reddick WE<sup>^</sup>, Glass JO, Cook EN, Elkin TD, Deaton RJ. Automated segmentation and classification of multispectral magnetic resonance images of brain using artificial neural networks. *IEEE Trans Med Imaging* 16(6):911-918, 1997.
14. Steen RG, **Reddick WE**, Mulhern RK, Langston JW, Ogg RJ, Bieberich AA, Kingsley PB, Wang WC. Quantitative MRI of the brain in children with sickle cell disease reveals abnormalities unseen by conventional MRI. *J Magn Reson Imaging* 8(3):535-543, 1998.
15. Reddick WE<sup>^</sup>, Mulhern RK, Elkin TD, Glass JO, Merchant TE, Langston JW. A hybrid neural network analysis of subtle brain volume differences in children surviving brain tumors. *Magn Reson Imaging* 16(4):413-421, 1998.

16. Steen RG, **Reddick WE**, Glass JO, Langston JW, Wang W. Evidence of general arterial ectasia in sickle cell disease patients with ectasia of the basilar artery. *J Stroke Cerebrovasc Dis* 7(5):330-338, 1998.
17. Kingsley PB, Ogg RJ, Steen RG, **Reddick WE**<sup>#</sup>. Correction of errors caused by imperfect inversion pulses in MR imaging measurement of T1 relaxation times. *Magn Reson Imaging* 16(9):1049-1055, 1998.
18. Glass JO, **Reddick WE**<sup>#</sup>. Hybrid artificial neural network segmentation and classification of dynamic contrast-enhanced MR imaging (DEMRI) of osteosarcoma. *Magn Reson Imaging* 16(9):1075-1083, 1998.
19. Steen RG, **Reddick WE**, Ogg RJ, Langston JW. Effect of a gadodiamide contrast agent on brain tissue T1. *Magn Reson Imaging* 17(2):229-235, 1999.
20. El Khadrawy AM, Hoffer FA, **Reddick WE**<sup>#</sup>. Ewing's sarcoma recurrence vs. radiation necrosis in dynamic contrast-enhanced MR imaging: a case report. *Ped Radiology* 29(4):272-274, 1999.
21. Mulhern RK, **Reddick WE**, Palmer SL, Glass JO, Elkin TD, Kun LE, Taylor JS, Langston JW, Gajjar A. Neurocognitive deficits in medulloblastoma survivors are associated with white matter loss. *Annals of Neurology* 46(6):834-841, 1999.
22. Steen RG, **Reddick WE**, Ogg RJ. More than meets the eye: significant regional heterogeneity in human cortical T1. *Mag Reson Imaging* 18(4):361-368, 2000.
23. Hoffer FA, Nikanorov AY, **Reddick WE**, Bodner SM, Xiong X, Jones-Wallace D, Gronemeyer SA, Kauffman WM, Laor T. Accuracy of MR imaging for detecting epiphyseal extension of osteosarcoma. *Pediatric Radiology* 30(5):289-298, 2000.
24. **Reddick WE**<sup>^</sup>, Russell JM, Glass JO, Xiong X, Mulhern RK, Langston JW, Merchant TE, Kun LE, Gajjar A. Subtle white matter volume differences in children treated for medulloblastoma with conventional or reduced-dose cranial-spinal irradiation. *Mag Reson Imaging* 18(7):787-793, 2000.
25. Gronemeyer SA, Steen RG, Kauffman WM, **Reddick WE**<sup>#</sup>, Glass JO. Fast adipose tissue (FAT) measurement by MRI. *Mag Reson Imaging* 18(7):815-818, 2000.
26. Glass JO, **Reddick WE**, Goloubeva O, Yo V, Steen RG. Hybrid neural network segmentation and classification of precise and accurate inversion recovery (PAIR) images from normal human brain. *Mag Reson Imaging* 18(10):1245-1253, 2000.
27. Mulhern RK, Palmer SL, **Reddick WE**, Glass JO, Kun LE, Taylor JS, Langston JW, Gajjar A. Risks of young age for selected neurocognitive deficits in medulloblastoma are associated with white matter loss. *J Clin Onc* 19(2):472-479, 2001.
28. Steen RG, Taylor JS, Langston JW, Glass JO, Brewer VR, **Reddick WE**, Mages R, Wang W, Pivnick E. Prospective evaluation of the brain in asymptomatic children with neurofibromatosis type-1: the relationship of macrocephaly to T1 relaxation changes and structural brain abnormalities. *Am J Neuroradiol* 22(5):810-817, 2001.
29. Thompson SJ, Leigh L, Christensen R, Xiong X, Kun LE, Heideman RL, **Reddick WE**, Gajjar A, Merchant TE, Pui CH, Hudson MM, Mulhern RK. Immediate neurocognitive effects of methylphenidate on learning-impaired survivors of childhood cancer. *J Clin Onc* 19(6):1802-1808, 2001.
30. Palmer SL, Goloubeva O, **Reddick WE**, Glass JO, Gajjar A, Kun LE, Merchant TE, Mulhern RK. Patterns of intellectual development among survivors of pediatric medulloblastoma: a longitudinal analysis. *J Clin Onc* 19(8):2302-2308, 2001.
31. **Reddick WE**<sup>^</sup>, Wang S, Xiong X, Glass JO, Wu S, Kaste SC, Pratt CB, Meyer WH, Fletcher BD. Dynamic magnetic resonance imaging of regional contrast access as an additional prognostic factor in pediatric osteosarcoma. *Cancer* 91(12):2230-2237, 2001.



32. Miller SL, Hoffer FA, **Reddick WE**, Wu S, Glass JO, Gronemeyer SA, Halolglu M, Nikanorov AY, Xiong X, Pappo AS. Tumor volume or dynamic contrast-enhanced MRI for prediction of clinical outcome of Ewing sarcoma family of tumors. *Pediatric Radiology* 31(7):518-523, 2001.
33. **Reddick WE**<sup>^</sup>, Glass JO, Langston JW, Helton KJ. Quantitative MRI assessment of leukoencephalopathy. *Mag Reson Med* 47(5):912-921, 2002. PMC2396564
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## ii. Original Research Articles Accepted for Future Publication (1)

1. Wang JX, Li Y, **Reddick WE**, Conklin HM, Glass JO, Onar-Thomas A, Gajjar A, Cheng C, Lu Z-H. A high-dimensional mediation model for a neuroimaging mediator: integrating clinical, neuroimaging, and neurocognitive data to mitigate late effects in pediatric cancer. *Biometrics*, 2022. PMC pending

## iii. Book Chapters (3)

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112. Jain JJ, Reddick WE. Tri-exponential T2 quantification *in vivo*. International Society for Magnetic Resonance in Medicine, 14<sup>th</sup> Scientific Meeting, Seattle, WA, May 7-13, 2006.
113. Hillenbrand CM, Loeffler RB, Glass JO, Reddick WE. Faster, quantitative brain imaging in pediatric patients by using IR-True-FISP. International Society for Magnetic Resonance in Medicine, 14<sup>th</sup> Scientific Meeting, Seattle, WA, May 7-13, 2006.
114. Helton KJ, Payder A, Glass JO, Hankins J, Hankins G, Sou P, Wang WC, Ware RE, Reddick WE, Ogg RJ. Combining segmentation and arterial spin-labeling perfusion techniques to evaluate cerebral blood flow in vascular territories of children with sickle cell anemia. 29<sup>th</sup> Annual Meeting of the National Sickle Cell Disease Program, Memphis, TN, April 8-12, 2006.114.
115. Reddick WE, Glass JO, Merchant TE, Xiong X, Zhao W, Gajjar A. Impact of radiation dosimetry on frontal lobe white matter volume development in children with medulloblastoma. 12<sup>th</sup> International Symposium on Pediatric Neuro-Oncology, Nara, Japan, June 6-9, 2006.
116. Reddick WE, Taylor BA, Glass JO, Xiong X, Zhao W, Merchant TE. Normal brain volume development quantified in children treated with conformal radiation therapy for infratentorial ependymoma. 12<sup>th</sup> International Symposium on Pediatric Neuro-Oncology, Nara, Japan, June 6-9, 2006.
117. Reddick WE, Taylor BA, Glass JO, Xiong X, Zhao W, Merchant TE. Normal supratentorial brain volume development in children treated for infratentorial ependymoma with 3D conformal radiation therapy. Workshop on Frontiers in Metabolic, Molecular and Clinical MR Imaging, Pocono Manor, PA, October 13-16, 2006.
118. Reddick WE, Glass JO, Merchant TE, Xiong X, Zhao W, Gajjar A. Frontal lobe white matter volume development in children treated for medulloblastoma with 3D conformal radiation therapy. Workshop on Frontiers in Metabolic, Molecular and Clinical MR Imaging, Pocono Manor, PA, October 13-16, 2006.

119. Reddick WE, Johnson DP, Glass JO, Zhang Y, Laningham FH, Pui C-H. Voxel-based analysis of leukoencephalopathy in children treated for acute lymphoblastic leukemia without irradiation. Workshop on Frontiers in Metabolic, Molecular and Clinical MR Imaging, Pocono Manor, PA, October 13-16, 2006.
120. Johnson DP, Reddick WE, Glass JO, Zhang Y, Laningham FH, Pui C-H. Voxel-based analysis of leukoencephalopathy in children treated for acute lymphoblastic leukemia. Memphis Bioimaging Symposium, Memphis, TN, October 26-27, 2006.
121. Matmati K, Ogg RJ, Berkelhammer L, Bassin C, Phillips NS, Zuo P, Glass JO, Reddick WE, Helton KJ. Correlation of diffusion tensor imaging with neurocognitive function in sickle cell patients. Memphis Bioimaging Symposium, Memphis, TN, October 26-27, 2006.
122. Jain JJ, Glass JO, Reddick WE. Automated arterial input function identification using self-organizing maps. SPIE International Symposium on Medical Imaging, Image Processing Conference, San Diego, CA, February 17-22, 2007.
123. Shan ZY, Hua C-H, Ji Q, Parra C, Ying X, Krasin MJ, Merchant TE, Kun LE, Reddick WE. A knowledge-guided active model method for skull segmentation on T1-weighted MR images. SPIE International Symposium on Medical Imaging, Image Processing Conference, San Diego, CA, February 17-22, 2007.
124. Jain JJ, Reddick WE. Global vs local arterial input function. International Society for Magnetic Resonance in Medicine, 15<sup>th</sup> Scientific Meeting, Berlin, Germany, May 19-25, 2007.
125. Glass JO, Jain JJ, Reddick WE. Optimized nonlinear normalization for voxel-based analyses: A comparison of the Free-Form Deformation in VTK to the Discrete Cosine Function in SPM2. International Society for Magnetic Resonance in Medicine, 15<sup>th</sup> Scientific Meeting, Berlin, Germany, May 19-25, 2007.
126. Reddick WE, Hoffer FA, Billups CA, Jenkins JJ, Wu J, Daw NC. Response assessment using dynamic MR imaging in non-metastatic osteosarcoma. American Society of Clinical Oncology, Chicago, IL, June 1-5, 2007.
127. Helton KJ, Matmati K, Berkelhammer L, Bassin C, Wang W, Ware R, Zou P, Reddick WE, Glass JO, Ogg R. Correlation of Diffusion Tensor Imaging with Neurocognitive Function in Patients with Sickle Cell Anemia, ASNR 45th Annual Meeting, Chicago, IL June 12, 2007.
128. Helton KJ, Matmati K, Berkelhammer L, Bassin C, Wang W, Ware R, Zou P, Reddick WE, Glass JO, Ogg R. Correlation of Diffusion Tensor Imaging with Neurocognitive Function in Patients with Sickle Cell Anemia, Joint Meeting SCDA and National Sickle Cell Program, September 17-22, 2007.
129. Conklin HM, Helton S, Lawford J, Jasper B, Khan RB, Reddick WE, Brown R, Bonner M, Wu S, Xiong X, Mulhern RK. Prediction of clinical response to methylphenidate in long-term survivors of childhood cancer. International Neuropsychological Society, Thirty-Sixth Annual Meeting, Honolulu, HI, February 6-9, 2008.
130. Reddick WE, Glass JO, Billups CA, Hoffer FA, Jenkins JJ, Quintana J, Villarroel M, Luchtman-Jones L, Daw NC. An international, multi-institutional trial of DCE-MRI in children treated for osteosarcoma. International Society for Magnetic Resonance in Medicine, 16<sup>th</sup> Scientific Meeting, Toronto, Canada, May 3-9, 2008.
131. Ji Q, Glass JO, Reddick WE. Contrast agent extravasation correction combined with automated AIF identification in DSC-MRI. International Society for Magnetic Resonance in Medicine, 16<sup>th</sup> Scientific Meeting, Toronto, Canada, May 3-9, 2008.
132. Conklin HM, Khan RB, Reddick WE, Northcutt J, Howard S, Morris B, Brown R, Bonner M, Wu S, Xiong X, Mulhern RK. Efficacy and tolerability of stimulant medication for learning-impaired survivors of childhood cancer. 13<sup>th</sup> International Symposium on Pediatric Neuro-Oncology, Chicago, IL, June 30-July 2, 2008.



133. Palmer SL, Reddick WE, Glass JO, Wallace D, Gajjar A. Reading ability is associated with the integrity of white matter microstructure following treatment for a pediatric brain tumor: a diffusion tensor imaging and cognitive outcome study. 13<sup>th</sup> International Symposium on Pediatric Neuro-Oncology, Chicago, IL, June 30-July 2, 2008.
134. Helton KJ, Glass JO, Reddick WE, Wang W, Ware RE, Zoltan P, Ogg RJ. Diffusion tensor imaging of cerebral white matter watershed regions in children with sickle cell disease. NIH Vasculopathy in Sickle Cell Disease Workshop, Bethesda, MD, August 27-28, 2008.
135. Helton KJ, Glass JO, Reddick WE, Wang W, Ware RE, Patay Z, Ogg R. Diffusion tensor imaging analysis of cerebral white matter watershed zones: correlations between children with sickle cell disease and normal volunteers. Southeastern Neuroradiological Society Meeting, Savannah, GA, October 23-25, 2008.
136. Carver DC, Reddick WE, Glass JO, Ji Q. Quantifying typical cortical thickness development in children. Memphis Bioimaging Symposium, Memphis, TN, November 6-7, 2008.
137. Löbel U, Glass JO, Inaba H, Sandlund JT, Reddick WE, Patay Z. Multimodality MRI evaluation and longitudinal follow-up of methotrexate-induced neurotoxicity: Case report and review of literature. Memphis Bioimaging Symposium, Memphis, TN, November 6-7, 2008.
138. Conklin HM, Khan RB, Reddick WE, Ashford J, Howard SC, Morris EB, Brown R, Bonner M, Christensen R, Wu S, Xiong X, Mulhern RK. Long-term effectiveness of methylphenidate in enhancing attention regulation, academic abilities and social skills in survivors of childhood cancer. International Neuropsychological Society, 37<sup>th</sup> Annual Meeting, Atlanta, GA, February 11-14, 2009.
139. Schoffstall CL, Ashford J, Reddick WE, Leone C, Pei D, Cheng C, Pui C-H, Conklin HM. Attention and working memory deficits, and their association with leukoencephalopathy, in children treated for acute lymphoblastic leukemia. International Neuropsychological Society, 37<sup>th</sup> Annual Meeting, Atlanta, GA, February 11-14, 2009.
140. Reddick WE, Guo J, Ji Q, Glass JO, McCarville ME, Daw NC. Preliminary experience with 3D DCE-MRI evaluation of children treated for osteosarcoma with chemotherapy plus bevacizumab. International Society for Magnetic Resonance in Medicine, 17<sup>th</sup> Scientific Meeting, Honolulu, HI, April 18-24, 2009.
141. Ji Q, Glass JO, Reddick WE. Defining arterial input function (AIF) in DSC-MRI: From global to local. International Society for Magnetic Resonance in Medicine, 17<sup>th</sup> Scientific Meeting, Honolulu, HI, April 18-24, 2009.
142. Guo J, Reddick WE. DCE MRI Pixel-by-pixel quantitative curve pattern analysis (CPA). International Society for Magnetic Resonance in Medicine, 17<sup>th</sup> Scientific Meeting, Honolulu, HI, April 18-24, 2009.
143. Guo J, Reddick WE. Dynamic contrast enhanced MRI parameters independent of baseline T1 values. International Society for Magnetic Resonance in Medicine, 17<sup>th</sup> Scientific Meeting, Honolulu, HI, April 18-24, 2009.
144. Carver DC, Ji Q, Glass JO, Pei D, Reddick WE. Quantifying typical cortical thickness development in children. International Society for Magnetic Resonance in Medicine, 17<sup>th</sup> Scientific Meeting, Honolulu, HI, April 18-24, 2009.
145. Glass JO, Palmer SL, Reddick WE, Wallace D, Phillips NS, Ogg RJ, Gajjar A. White matter integrity measured by fractional anisotropy is associated with reading ability in pediatric brain tumor patients: a voxel based analysis study of cognitive outcome. International Society for Magnetic Resonance in Medicine, 17<sup>th</sup> Scientific Meeting, Honolulu, HI, April 18-24, 2009.
146. Shan ZY, Mateha SJ, Reddick WE, Glass JO, Shulkin BL. Retrospective evaluation of brain PET-MR registration. International Society for Magnetic Resonance in Medicine, 17<sup>th</sup> Scientific Meeting, Honolulu, HI, April 18-24, 2009.
147. Löbel U, Glass JO, Inaba H, Reddick WE, Sandlund JT, Patay Z. Diffusion tensor imaging and 1H-MR spectroscopy for evaluation of methotrexate leukoencephalopathy in a patient with acute lymphoblastic

- leukemia. International Society for Magnetic Resonance in Medicine, 17<sup>th</sup> Scientific Meeting, Honolulu, HI, April 18-24, 2009.
148. Miller NG, Reddick WE, Kocak M, Glass JO, Ji Q, Löbel U, Morris B, Gajjar A, Patay Z. MRI evaluation of the proximal efferent cerebellar pathway in pediatric patients with Posterior Fossa Syndrome. American Society of Neuroradiology, 47<sup>th</sup> Annual Meeting, Vancouver, British Columbia, Canada, May 16-21, 2009.
  149. Miller NG, Reddick WE, Kocak M, Glass JO, Ji Q, Löbel U, Morris B, Gajjar A, Patay Z. Dynamic susceptibility-weighted contrast enhanced perfusion data suggest that posterior fossa syndrome in patients operated for midline cerebellar tumors is a form of cerebello-cerebral diaschisis. American Society of Neuroradiology, 47<sup>th</sup> Annual Meeting, Vancouver, British Columbia, Canada, May 16-21, 2009.
  150. Löbel U, Sedlacik J, Ji Q, Kocak M, Broniscer A, Hillenbrand C, Reddick WE, Patay Z. Quantitative characterization of T2 hypointense foci in diffuse pontine gliomas using dynamic susceptibility-weighted contrast enhanced perfusion MR and diffusion-weighted imaging. European Society of Neuroradiology, 34<sup>th</sup> Annual Meeting, Athens, Greece, September 17-20, 2009.
  151. Tanzeem S, Ji Q, Reddick WE, Iftekharruddin K. 3D quantitative brain tumor growth model based on cell proliferation and diffusion. Memphis Bioimaging Symposium, Memphis, TN, November 5-6, 2009.
  152. Conklin HM, Merchant TE, Reddick WE, Ogg RJ, Ashford JM, Skinner TN, Wu S, Xiong X. Working memory performance in childhood brain tumor survivors. International Neuropsychological Society, 38<sup>th</sup> Annual Meeting, Acapulco, Mexico, February 3-6, 2010.
  153. Reddick WE, Ji Q, Carver DC, Glass JO, Guo J-Y, Patay Z. Preliminary experience with DTI and multi-exponential T2 relaxation imaging of myelin in children treated for ALL. International Society for Magnetic Resonance in Medicine, 18<sup>th</sup> Scientific Meeting, Stockholm, Sweden, May 1-7, 2010.
  154. Guo J-Y, Ji Q, McCarville ME, Daw NC, Reddick WE. Preliminary results with 3D DCE-MRI curve pattern analysis of treatment response in osteosarcoma. International Society for Magnetic Resonance in Medicine, 18<sup>th</sup> Scientific Meeting, Stockholm, Sweden, May 1-7, 2010.
  155. Guo J-Y, Reddick WE. Qualitative and quantitative assessment of osteosarcoma treatment response using DCE-MRA. International Society for Magnetic Resonance in Medicine, 18<sup>th</sup> Scientific Meeting, Stockholm, Sweden, May 1-7, 2010.
  156. Löbel U, Sedlacik J, Ji Q, Kocak M, Broniscer A, Hillenbrand CM, Reddick WE, Patay Z. T2 hypointense foci in pediatric diffuse intrinsic pontine glioma characterized by diffusion tensor imaging and dynamic susceptibility-weighted contrast-enhanced perfusion MRI. American Society of Neuroradiology, 47<sup>th</sup> Annual Meeting, Boston, MA, May 17-21, 2010.
  157. Palmer SL, Reddick WE, Glass JO, Ogg RJ, Broniscer A, Qaddoumi I, Armstrong GT, Morris B, Gajjar A. Diffusion tensor imaging (DTI) following treatment for pediatric embryonal tumors: Correlation with speed of processing. 14<sup>th</sup> International Symposium on Pediatric Neuro-Oncology, Vienna, Austria, June 20-23, 2010.
  158. Wright KD, Tagen M, Reddick WE, Sanders RP, Ward DA, Haidar C, McKibbin T, Williams-Griffin M, Patay Z, Dewire M, Qaddoumi I, Morris B, Broniscer A, Boop FA, Gajjar A, Stewart CF. Delayed methotrexate excretion in infants and young children with postoperative central nervous system (CNS) fluid collections: Pharmacokinetic analysis and implications for brain tumor treatment. 14<sup>th</sup> International Symposium on Pediatric Neuro-Oncology, Vienna, Austria, June 20-23, 2010.
  159. Taghipour DJ, Reddick WE, Glass JO, Conklin HM, Ashford JM, Xiong X, Wu S, Bonner M, Khan RB, Mulhern RK. Survivors of childhood cancers at increased risk for reduced white matter volumes and deficits in attention and learning. Workshop on Improving Cancer Treatment with Advanced MR, Santa Cruz, CA, September 19-22, 2010.

160. Löbel U, Kocak M, Broniscer A, Hillenbrand CM, [Reddick WE](#), Patay Z. Quantitative diffusion tensor imaging and dynamic susceptibility-weighted contrast-enhanced perfusion MRI analysis of T2 hypointense lesion components in pediatric diffuse pontine glioma. Congress of the German Society of Neuroradiology (DGNR), 45<sup>th</sup> Annual Meeting, Cologne, Germany, October 7-9, 2010.
161. [Reddick WE](#), Glass JO, Ji Q, Carver DC, Krull KR. Feasibility of cortical thickness measures in survivors of childhood acute lymphoblastic leukemia. International Society for Magnetic Resonance in Medicine, 19<sup>th</sup> Scientific Meeting, Montreal, Canada, May 7-13, 2011.
162. Glass JO, [Reddick WE](#), Jeha S. Diffusion tensor imaging of therapy induced leukoencephalopathy in children treated for acute lymphoblastic leukemia. International Society for Magnetic Resonance in Medicine, 19<sup>th</sup> Scientific Meeting, Montreal, Canada, May 7-13, 2011.
163. Ji Q, Guo J-Y, Glass JO, [Reddick WE](#). Strong regularization for brain myelin water quantification in T2 relaxation MRI obtained in 3.0T. International Society for Magnetic Resonance in Medicine, 19<sup>th</sup> Scientific Meeting, Montreal, Canada, May 7-13, 2011.
164. Guo J-Y, Ji Q, [Reddick WE](#). 2D Multi-slice quantitative myelin water imaging at 3T. International Society for Magnetic Resonance in Medicine, 19<sup>th</sup> Scientific Meeting, Montreal, Canada, May 7-13, 2011.
165. Guo J-Y, Glass JO, Billups CA, Daw NC, [Reddick WE](#). DCE-MRI as a prognostic factor in osteosarcoma. International Society for Magnetic Resonance in Medicine, 19<sup>th</sup> Scientific Meeting, Montreal, Canada, May 7-13, 2011.
166. Sabin ND, Krull KR, Liu W, Glass JO, Srivastava DK, Robison LL, Hudson MM, [Reddick WE](#). Diffusion tensor imaging parameters and neurocognitive performance in long-term adult survivors of childhood acute lymphocytic leukemia. American Society of Neuroradiology, 49<sup>th</sup> Annual Meeting, Seattle, WA, June 4-9, 2011.
167. Santana VM, Baker SD, McCarville B, Stewart CF, Wu J, Billups C, Spunt SL, Furman WL, McGregor LM, Hu S, Panetta JC, [Reddick WE](#), Davidoff AM, Leung W, Navid F. Phase I study of bevacizumab, sorafenib, and low-dose cyclophosphamide (CYC) in children and young adults with refractory solid tumors. American Society of Clinical Oncology, Chicago, IL, June 3-7, 2011.
168. Helton KJ, Glass JO, Paydar A, Zandieh A, Dave R, Hankins J, Aygun B, [Reddick WE](#), Ogg RJ. Comparing segmented ASL perfusion of vascular territories using manual vs. semi-automated techniques in children with sickle cell anemia. Radiological Society of North America, 97<sup>th</sup> Scientific Assembly and Annual Meeting, Chicago, IL, November 27-December 2, 2011.
169. Krull KR, [Reddick WE](#), Pui CH, Srivastava DK, Robison LL, Hudson MM. Neurocognitive and physiological outcome in survivors of childhood acute lymphoblastic leukemia treated with prednisone versus dexamethasone. European Symposium on Late Complications after Childhood Cancer, Annual Symposium, Amsterdam, September 29-30, 2011.
170. Krull KR, Sabin ND, [Reddick WE](#), Zhu L, Armstrong GT, Green DM, Srivastava DK, Metzger M, Robison LL, Hudson MM. Central nervous system integrity in adult survivors of childhood hodgkin lymphoma. American Society of Hematology, 53<sup>rd</sup> Annual Meeting, San Diego, CA, December 10-13, 2011.
171. Howarth RA, [Reddick WE](#), Ashford JM, Glass JO, Wu S, Conklin HM. Examining the value of structural neuroimaging in predicting response to methylphenidate among childhood cancer survivors. International Neuropsychological Society, 40<sup>th</sup> Annual Meeting, Montreal, Québec, Canada, February 15-18, 2012.
172. Krull KR, [Reddick WE](#), Pui C-H, Srivastava KD, Robison LL, Hudson MM. Neurocognitive and physiological outcome in survivors of childhood acute lymphoblastic leukemia treated with prednisone versus dexamethasone. International Neuropsychological Society, 40<sup>th</sup> Annual Meeting, Montreal, Québec, Canada, February 15-18, 2012.
173. Krull KR, Sabin N, [Reddick WE](#), Zhu L, Armstrong GT, Green D, Srivastava DK, Metzger M, Robison LL, Hudson MM. Central nervous system integrity in adult survivors of childhood hodgkin lymphoma.

International Neuropsychological Society, 40<sup>th</sup> Annual Meeting, Montreal, Québec, Canada, February 15-18, 2012.

174. Nassar SL, Conklin HM, Ashford JM, Reddick WE, Glass JO, Jeha S, Zhou Y, Cheng C, Pui C-H. Cognitive outcomes in children experiencing seizures during treatment for acute lymphoblastic leukemia. Society of Behavioral Medicine, 33<sup>rd</sup> Annual Meeting, New Orleans, LA, April 11-14, 2012.
175. Reddick WE, Palmer SL, Glass JO, Qaddoumi I, Armstrong GT, Wright K, Broniscer A, Ogg RJ, Gajjar A. Processing speed and white matter association in survivors of childhood acute lymphoblastic leukemia. Organization for Human Brain Mapping, 18th Annual Meeting, Beijing, China, June 10-14, 2012.
176. Conklin HM, Krull KR, Reddick WE, Pei D, Cheng C, Pui C-H. Cognitive outcomes following contemporary treatment without cranial irradiation for childhood acute lymphoblastic leukemia. NCI Cancer Survivorship Research Conference, Arlington, VA, June 14-16, 2012.
177. Krull KR, Bhojwani D, Pei D, Conklin HM, Cheng C, Reddick WE, Li J, Sandlund J, Relling M, Pui CH. Genetic mediators of neurocognitive function in survivors of childhood acute lymphoblastic leukemia. NCI Cancer Survivorship Research Conference, Arlington, VA, June 14-16, 2012.
178. Reddick WE, Palmer SL, Glass JO, Li Y, Ogg RJ, Gajjar A. Processing speed and white matter association in children three years post treatment for medulloblastoma. 15<sup>th</sup> International Symposium on Pediatric Neuro-Oncology, Toronto, Canada, June 24-27, 2012.
179. Reddick WE, Glass JO, Li Y, Ogg RJ, Gajjar A. Longitudinal tract-based white matter changes in children treated for medulloblastoma. 15<sup>th</sup> International Symposium on Pediatric Neuro-Oncology, Toronto, Canada, June 24-27, 2012.
180. Harreld JH, Kaddoum RN, Helton KJ, Glass JO, Patay Z, Sansgiri R, Parish ME, Gajjar A, Reddick WE. Effects of sedation on cerebral white matter perfusion in the pediatric brain. American Society of Neuroradiology, 50th Annual Meeting, New York, NY, June 21-26, 2012.
181. Patay Z, Reddick WE, Harreld J, Sabin N, Helton K, Sablauer A, Glass JO, Klimo P, Broniscer A, Ellison D. Magnetic resonance imaging features of infantile ETANTR in the pons. American Society of Neuroradiology, 50th Annual Meeting, New York, NY, June 21-26, 2012.
182. Conway AE, Reddick WE, Li Y, Glass JO, Sablauer A, Baker J, Kun L, Broniscer A, Patay Z. "Occult" signal enhancement in pediatric diffuse intrinsic pontine glioma is the MR imaging substrate of angiogenesis. American Society of Neuroradiology, 50th Annual Meeting, New York, NY, June 21-26, 2012.
183. Paulus E, Glass JO, Ji Q, Li Y, Reddick WE. Quantitative structural neuroimaging of pediatric patients with medulloblastoma. Memphis Bioimaging Symposium, Memphis, TN, November 1-2, 2012.
184. Armstrong GT, Petersen R, Zhang N, Santucci A, Srivastava D, Reddick WE, Ogg R, Hillenbrand C, Sabin N, Krasin MT, Kun L, Pui C-H, Hudson MM, Robison LL, Krull KR. Long-term memory deficits and early onset dementia in aging adult survivors of childhood acute lymphoblastic leukemia treated with cranial irradiation. American Society of Hematology, 54th Annual Meeting, Atlanta, GA, December 8-11, 2012.
185. Conklin HM, Ashford JM, Reddick WE, Glass JO, Jacola LM, Ogg RJ, Merchant TE. The relationship between working memory abilities and white matter integrity in childhood brain tumor survivors. International Neuropsychological Society, 41<sup>th</sup> Annual Meeting, Waikoloa, Hawaii, February 6-9, 2013.
186. Armstrong GT, Petersen R, Zhang N, Santucci A, Srivastava D, Reddick WE, Ogg R, Hillenbrand C, Sabin N, Krasin MT, Kun L, Pui C-H, Hudson MM, Robison LL, Krull KR. Long-term memory in aging adult survivors of childhood acute lymphoblastic leukemia (ALL) treated with cranial irradiation. International Neuropsychological Society, 41<sup>th</sup> Annual Meeting, Waikoloa, Hawaii, February 6-9, 2013.
187. Brinkman TM, Reddick WE, Luxton J, Glass JO, Sabin ND, Robison LL, Hudson MM, Krull KR. Cerebral white matter integrity and executive function in adult survivors of childhood medulloblastoma: A pilot study from the St. Jude Lifetime Cohort. International Neuropsychological Society, 41<sup>th</sup> Annual Meeting, Waikoloa, Hawaii, February 6-9, 2013.

188. Reddick WE, McCarville MB, Shulkin BL, Glass JO, Navid F. DCE-MRI and PET imaging of osteosarcoma during neoadjuvant chemotherapy. Workshop on Magnetic Resonance of Cancer Gone Multimodal, Valencia, Spain, February 19-22, 2013.
189. Glass JO, Ogg RJ, Li Y, Gajjar A, Reddick WE. Disrupted frontal white matter development and integrity in patients treated for pediatric infratentorial brain tumors. International Society for Magnetic Resonance in Medicine, 21<sup>st</sup> Scientific Meeting, Salt Lake City, UT, April 20-26, 2013.
190. Reddick WE, Glass JO, Zhang N, Peterson RC, Kun LE, Pui C-H, Hudson MM, Robison LL, Krull KR, Armstrong GT. Structural neuroimaging phenotype of dementia in adult survivors of childhood ALL. International Society for Magnetic Resonance in Medicine, 21<sup>st</sup> Scientific Meeting, Salt Lake City, UT, April 20-26, 2013.
191. Guo J, Reddick WE. Simulation of myelin water imaging. International Society for Magnetic Resonance in Medicine, 21<sup>st</sup> Scientific Meeting, Salt Lake City, UT, April 20-26, 2013.
192. Guo J, Ji Q, Reddick WE. Multi-slice myelin water imaging for practical clinical applications at 3.0 T. International Society for Magnetic Resonance in Medicine, 21<sup>st</sup> Scientific Meeting, Salt Lake City, UT, April 20-26, 2013.
193. Ji Q, Glass JO, Reddick WE. Comparison study of two dti tractography methods for quantifying brain structural connectivity. International Society for Magnetic Resonance in Medicine, 21<sup>st</sup> Scientific Meeting, Salt Lake City, UT, April 20-26, 2013.
194. Awwad RS, Reddick WE, Winter B, Li Y, Glass JO, Kaddoum RN, Patay Z, Gajjar A, Harreld JH.. Effects of propofol on cerebral perfusion of white matter versus gray matter in pediatric brain. International Society for Magnetic Resonance in Medicine, 21<sup>st</sup> Scientific Meeting, Salt Lake City, UT, April 20-26, 2013.
195. Sabin ND, Santucci A, Klimo P, Zhang N, Srivastava DK, Pui CH, Hudson MM, Krull KR, Kun L, Krasin M, Reddick WE, Hillenbrand C, Ogg R, Patay Z, Robison LL, Armstrong GT. Prevalence of Subsequent Intracranial Neoplasms on Screening MRI in Long Term Survivors of Childhood ALL. American Society of Neuroradiology, 51<sup>st</sup> Annual Meeting, San Diego, CA, May 18-23, 2013.
196. Reddick WE, Glass JO, Ji Q, Paulus E, Gajjar A, Ogg RJ. Longitudinal cortical thickness changes in children treated for medulloblastoma. 2013 Pediatric Neuro-Oncology Basic and Translational Research Conference, Fort Lauderdale, FL, May 16-17, 2013.
197. Ogg RJ, Scoggins MA, Zou P, Taherbhoy S, Jones M, Li Y, Glass JO, Merchant TE, Reddick WE, Conklin HC, Gajjar A. Neural systems for reading in medulloblastoma survivors. 2013 Pediatric Neuro-Oncology Basic and Translational Research Conference, Fort Lauderdale, FL, May 16-17, 2013.
198. Shulkin BL, Davis JC, Navid F, Catherine B, Santana V, Reddick WE, Daw ND. FDG PET/CT in pediatric osteosarcoma: comparison of standard & delayed scanning. SNMMI Annual Meeting, Vancouver, BC, Canada, June 8-12, 2013.
199. Ji Q, Glass JO, Reddick WE. Impact of therapy induced leukoencephalopathy on connectivity in children treated for ALL. Organization for Human Brain Mapping, 19th Annual Meeting, Seattle, WA, June 16-20, 2013.
200. Reddick WE, Glass JO, Ji Q, Hyun JW, Yuan Y, Krull KR, Armstrong GT. Connectivity in aging adult survivors of childhood ALL. Organization for Human Brain Mapping, 19th Annual Meeting, Seattle, WA, June 16-20, 2013.
201. Glass JO, Hyun JW, Yuan Y, Reddick WE. Longitudinal changes in connectivity during treatment for childhood ALL. Organization for Human Brain Mapping, 19th Annual Meeting, Seattle, WA, June 16-20, 2013.
202. Reddick WE, Glass JO, Sabin ND, Zhang N, Peterson RC, Kun LE, Pui C-H, Hudson MM, Robison LL, Krull KR, Armstrong GT. Evaluating the structural neuroanatomical phenotype of memory impairment in adult survivors of childhood ALL. 13<sup>th</sup> International Conference on Long-Term Complications of Treatment of Children and Adolescents for Cancer, Memphis, TN, June 12-15, 2013.

203. Armstrong GT, Ogg RJ, Reddick WE, Peterson RC, Santucci A, Zhang N, Srivastava D, Hillenbrand CM, Sabin N, Krasin M, Kun LE, Pui C-H, Hudson MM, Robison LL, Krull KR. Evaluation of memory impairment and dementia in adult survivors of childhood acute lymphoblastic leukemia treated with cranial radiotherapy. 13<sup>th</sup> International Conference on Long-Term Complications of Treatment of Children and Adolescents for Cancer, Memphis, TN, June 12-15, 2013.
204. Armstrong GT, Ogg RJ, Reddick WE, Petersen RC, Santucci A, Zhang N, Srivastava DK, Hillenbrand CM, Sabin N, Krasin MJ, Kun LE, Pui C-H, Hudson MM, Robison LL, Krull KR. Evaluation of memory impairment and dementia in aging adult survivors of childhood acute lymphoblastic leukemia treated with cranial radiotherapy. 8<sup>th</sup> International Congress on Vascular Dementia, Athens, Greece, October 17-20, 2013.
205. Harreld JH, Awwad R, Sabin ND, Yuan Y, Rossi M, Reddick WE, Glass JO, Ji Q, Gajjar A, Helton KJ, Patay Z. Cerebral perfusion influences signal intensity in sulci on FLAIR imaging. Radiological Society of North America, 99<sup>th</sup> Scientific Assembly and Annual Meeting, Chicago, IL, December 1-6, 2013.
206. Edelmann MN, Krull KR, Wei L, Glass J, Ogg RJ, Srivastava DK, Robison LL, Hudson MM, Reddick WE. Diffusion tensor imaging and neurocognitive performance in long-term adult survivors of childhood acute lymphoblastic leukemia. International Cognition and Cancer Task Force Annual Meeting (ICCTF), Seattle, WA, February 10-11, 2014.
207. Guo J, Reddick WE. QQ quantification analysis of DCE-MRI for osteosarcoma. International Society for Magnetic Resonance in Medicine, 22<sup>st</sup> Scientific Meeting, Milan, Italy, May 10-16, 2014.
208. Guo J, Reddick WE, Glass JO, Wu J, McCarville MB, Shulkin BL, Daw NC, Navid F. DCE-MRI and PET imaging as a predictive and prognostic biomarker in osteosarcoma. International Society for Magnetic Resonance in Medicine, 22<sup>st</sup> Scientific Meeting, Milan, Italy, May 10-16, 2014.
209. Ji Q, Glass JO, Edelmann MC, Krull KR, Ogg RJ, Reddick WE. Hippocampal shape analysis in adult survivors of childhood acute lymphoblastic leukemia: the effect of cranial radiotherapy. International Society for Magnetic Resonance in Medicine, 22<sup>st</sup> Scientific Meeting, Milan, Italy, May 10-16, 2014.
210. Pryweller JR, Glass JO, Li X, Li Y, Reddick WE. Pediatric ALL: Characterization of WM damage and associated risk factors. International Society for Magnetic Resonance in Medicine, 22<sup>st</sup> Scientific Meeting, Milan, Italy, May 10-16, 2014.
211. Glass JO, Paulus EM, Patay Z, Sandlund JT, Reddick WE. Longitudinal patterns of diffusion measures in children treated for B-cell Lymphoma. International Society for Magnetic Resonance in Medicine, 22<sup>st</sup> Scientific Meeting, Milan, Italy, May 10-16, 2014.
212. Reddick WE, Glass JO, Hyun JW, Li Y, Pounds S, Kun LE, Pui C-H, Hudson MM, Robison LL, Krull KR, Armstrong GT. Cortical thinning & connectivity in adult survivors of childhood acute lymphoblastic leukemia (ALL). Organization for Human Brain Mapping, 20<sup>th</sup> Annual Meeting, Hamburg, Germany, June 8-12, 2014.
213. Reddick WE, Guo J, Glass JO, Pryweller JR, Gajjar A. Feasibility of whole-head high-angular resolution diffusion imaging in a pediatric brain tumor setting. 16<sup>th</sup> International Symposium on Pediatric Neuro-Oncology, Singapore, June 28-July 2, 2014.
214. Guo J, Reddick WE. DCE-MRI kinetic model and curve pattern analyses for predicting response and survivals in osteosarcoma patients. International Society for Magnetic Resonance in Medicine, 23<sup>rd</sup> Scientific Meeting, Toronto, Canada, June 1-5, 2015.
215. Ji Q, Glass JO, Reddick WE. Extraction of fiber pathway using probabilistic fiber-tracking. Organization for Human Brain Mapping, 21<sup>th</sup> Annual Meeting, Honolulu, Hawaii, June 15-18, 2015.
216. Reddick WE, Glass JO, Ji Q, Cheung YT, Sabin N, Pui C-H, Hudson MM, Krull KR. Frontostriatal integrity and association with executive function in survivors of childhood ALL. Organization for Human Brain Mapping, 21<sup>th</sup> Annual Meeting, Honolulu, Hawaii, June 15-18, 2015.
217. Reddick WE, Glass JO, Conklin H, Li Y, Ji Q, Jacola L, Pryweller J, Pui C-H, Jeha S. Integrity of DLPF connections and association with executive function in childhood ALL. Organization for Human Brain Mapping, 21<sup>th</sup> Annual Meeting, Honolulu, Hawaii, June 15-18, 2015.

218. Cheung YT, Sabin ND, Reddick WE, Bhojwani D, Liu W, Brinkman TM, Glass JO, Srivastava DK, Robison LL, Pui C-H, Hudson MM, Krull KR. Association between acute leukoencephalopathy and long-term neurobehavioral and brain imaging outcomes in survivors of childhood acute lymphoblastic leukemia treated with chemotherapy only. American Society of Hematology, 58th Annual Meeting, Orlando, FL, December 4-7, 2015.
219. Cheung YT, Reddick WE, Brinkman TM, Glass JO, Robison LL, Pui C-H, Hudson MM, Krull KR. White matter integrity, neurocognitive and neurobehavioral outcomes in long-term survivors of childhood acute lymphoblastic leukemia (ALL). International Neuropsychological Society, 44<sup>th</sup> Annual Meeting, Boston, MA, February 3-6, 2016.
220. Duncan EC, Reddick WE, Glass JO. Application of probabilistic fiber-tracking method of MR Imaging to measure impact of cranial irradiation on structural brain connectivity in children treated for medulloblastoma. SPIE International Symposium on Medical Imaging, Biomedical Applications in Molecular, Structural, and Functional Imaging, San Diego, CA, February 27-March 3, 2016.
221. Patay Z, Clerk-Lamalice O, Li Y, Edwards A, Glass JO, Reddick WE. MRI Evaluation of Non-Necrotic and Necrotic T2 Hyperintense Foci in Pediatric Diffuse Intrinsic Pontine Glioma. 5th European Conference on Clinical Neuroimaging, Rome, Italy, March 14-15, 2016.
222. Guo J, Patay Z, Reddick WE. Fast frequency-sweep spectroscopic imaging with an ultra-low flip angle. International Society for Magnetic Resonance in Medicine, 24<sup>th</sup> Scientific Meeting, Singapore, May 7-13, 2016.
223. Guo J, Glass JO, Hyun JW, Li Y, Conklin H, Jacola L, Pui C-H, Jeha S, Reddick WE. DTI association with working memory and speed in cognitive network pathways. International Society for Magnetic Resonance in Medicine, 24<sup>th</sup> Scientific Meeting, Singapore, May 7-13, 2016.
224. Ji Q, Glass JO, Duncan EC, Gajjar A, Reddick WE. Assessment of global and regional cerebral white matter changes induced by cranial radiotherapy in childhood brain tumor patients using a structural connectivity network approach. International Society for Magnetic Resonance in Medicine, 24<sup>th</sup> Scientific Meeting, Singapore, May 7-13, 2016.
225. Glass JO, Ogg RJ, Hyun JW, Harreld JH, Li Y, Gajjar A, Reddick WE. Disrupted development and integrity of frontal white matter in patients treated for pediatric posterior fossa tumors. International Society for Magnetic Resonance in Medicine, 24<sup>th</sup> Scientific Meeting, Singapore, May 7-13, 2016.
226. Reddick WE, Glass JO, Duncan EC, Hyun JW, Ji Q, Li Y, Gajjar A. Assessment of changes in structural connectivity of the central executive network during cranial radiotherapy in children treated for medulloblastoma. International Society for Magnetic Resonance in Medicine, 24<sup>th</sup> Scientific Meeting, Singapore, May 7-13, 2016.
227. Keenan KE, Stupic KF, Boss MA, Russek SE, Chenevert TL, Prasad PV, Reddick WE, Cecil KM, Zheng J, Hu P, Jackson EF, Ad Hoc Committee on Standards for Quantitative MRI. Multi-site, multi-vendor comparison of T1 measurement using ISMRM/NIST system phantom. International Society for Magnetic Resonance in Medicine, 24<sup>th</sup> Scientific Meeting, Singapore, May 7-13, 2016.
228. Patay Z, Clerk-Lamalice O, Li Y, Edwards A, Glass JO, Reddick WE. MRI Evaluation of Non-Necrotic T2 Hyperintense Foci in Pediatric Diffuse Intrinsic Pontine Glioma. American Society of Neuroradiology, 54<sup>th</sup> Annual Meeting, Washington DC, May 23-26, 2016.
229. Reddick WE, Glass JO, Duncan EC, Ashford JM, Hyun JW, Ji Q, Li Y, Conklin HM, Gajjar A. Assessment of changes in structural connectivity of the central executive network during cranial radiotherapy in children treated for medulloblastoma. 17<sup>th</sup> International Symposium on Pediatric Neuro-Oncology, Liverpool, England, June 12-15, 2016.
230. Reddick WE, Glass JO, Conklin HM, Li Y, Hyun JW, Jacola L, Pui C-H, Jeha S, Ogg RJ. Integrity of executive / salience networks and impact on neurocognitive performance in childhood ALL. Organization for Human Brain Mapping, 22<sup>nd</sup> Annual Meeting, Geneva, Switzerland, June 26-30, 2016.
231. Clerk-Lamalice O, Reddick WE, Li Y, Edwards A, Glass JO, Patay Z. MRI evaluation of non-necrotic T2-hyperintense foci in pediatric diffuse intrinsic pontine glioma. Eastern Neuroradiological Society

(ENRS), 28<sup>th</sup> Annual Meeting, Quebec City, Canada, August 11 - 14, 2016.

232. Banerjee P, Reddick WE, Cheung YT, Glass JO, Robison LL, Hudson MM, Krull KR. Visuoconstruction organizational strategy and neuroimaging outcomes in long-term survivors of childhood acute lymphoblastic leukemia treated with chemotherapy. International Neuropsychological Society, 45<sup>th</sup> Annual Meeting, New Orleans, LA, February 1-4, 2017.
233. Brinkman TM, Cheung YT, Li C, Wilson CL, Kang G, Liu W, Ness KK, Reddick WE, Edelman M, Srivastava D, Neale G, Hudson MM, Robison LL, Krull KR. Genome-wide association study of attention problems and executive dysfunction in adult survivors of childhood leukemia. International Neuropsychological Society, 45<sup>th</sup> Annual Meeting, New Orleans, LA, February 1-4, 2017.
234. Glass JO, Ogg RJ, Hyun JW, Harreld JH, Schreiber JE, Li Y, Gajjar AJ, Reddick WE. Disrupted integrity of frontal white matter and neurocognitive correlates in patients treated for pediatric medulloblastoma. International Society for Magnetic Resonance in Medicine, 25<sup>th</sup> Scientific Meeting, Honolulu, HI, April 22-27, 2017.
235. Fellah S, Scoggins MA, Zou P, Jacola LM, Pui C-H, Ogg RJ, Reddick WE. Associations between clinical risk factors, neurocognitive performance and brain activity in long-term survivors of childhood acute lymphoblastic leukemia treated on a chemotherapy-only protocol. International Society for Magnetic Resonance in Medicine, 25<sup>th</sup> Scientific Meeting, Honolulu, HI, April 22-27, 2017.
236. Guo J, Glass JO, Hyun JW, Li Y, Conklin HM, Jacola LM, Pui C-H, Jeha S, Reddick WE. Brain structural network of working memory and decision speed for ALL survivors. International Society for Magnetic Resonance in Medicine, 25<sup>th</sup> Scientific Meeting, Honolulu, HI, April 22-27, 2017.
237. Ji Q, Edwards A, Glass JO, Patay Z, Reddick WE. Extraction of dentatorubrothalamic fiber tract in human brain using probabilistic fiber tracking and unsupervised clustering algorithm. International Society for Magnetic Resonance in Medicine, 25<sup>th</sup> Scientific Meeting, Honolulu, HI, April 22-27, 2017.
238. Sabin ND, Cheung, YT, Reddick WE, Bhojwani D, Liu W, Glass JO, Brinkman TM, Srivastava D, Pui C-H, Robison LL, Hudson MM, Krull KR. Leukoencephalopathy and diffusion tensor imaging in long-term survivors of childhood acute lymphoblastic leukemia treated with chemotherapy only. American Society of Neuroradiology, 55<sup>th</sup> Annual Meeting, Long Beach, CA, April 22-27, 2017.
239. Al-Fahad R, Yeasin M, Glass JO, Conklin HM, Jacola LM, Reddick WE. Early imaging based predictive modeling of cognitive performance following therapy for childhood ALL. Organization for Human Brain Mapping, 23<sup>rd</sup> Annual Meeting, Vancouver, BC, Canada, June 25-29, 2017.
240. Cheung YT, Khan RB, Liu W, Brinkman TM, Edelman MN, Reddick WE, Pei D, Panoskaltsis-Mortari A, Srivastava D, Cheng C, Robison LL, Hudson MM, Pui C-H, Krull K. Biomarkers of brain injury and neurologic outcomes in children treated with chemotherapy for acute lymphoblastic leukemia (ALL). 15th International Conference on Long-Term Complications of Treatment of Children and Adolescents for Cancer, Atlanta, GA, June 15–17, 2017.
241. Phillips NS, Glass JO, Scoggins M, Cheung YT, Liu W, Ogg RJ, Mulrooney DA, Pui C-H, Robison LL, Reddick WE, Hudson MM, Krull KR. Subcortical brain volumes and neurocognitive function in survivors of childhood acute lymphoblastic leukemia (ALL) treated with chemotherapy-only. 15th International Conference on Long-Term Complications of Treatment of Children and Adolescents for Cancer, Atlanta, GA, June 15–17, 2017.
242. Phillips NS, Glass JO, Scoggins M, Cheung YT, Liu W, Ogg RJ, Mulrooney DA, Pui C-H, Robison LL, Reddick WE, Hudson MM, Krull KR. Subcortical brain volumes and neurocognitive function in survivors of childhood acute lymphoblastic leukemia (ALL) treated with chemotherapy-only. American Society of Clinical Oncology, Chicago, IL, June 2-6, 2017.
243. Cheung YT, Khan RB, Liu W, Brinkman TM, Edelman MN, Reddick WE, Pei D, Panoskaltsis-Mortari A, Srivastava D, Cheng C, Robison LL, Hudson MM, Pui C-H, Krull K. Biomarkers of brain injury and neurologic outcomes in children following chemotherapy for acute lymphoblastic leukemia (ALL). American Society of Clinical Oncology, Chicago, IL, June 2-6, 2017.
244. Salan T, Jacobs EL, Reddick WE. Simulation of demyelination and its effect on diffusion tensor imaging. IEEE Engineering in Medicine and Biology Society, 39th Annual International Conference,



Jeju Island, Korea, July 11-15, 2017.

245. Phillips NS, Glass JO, Banerjee P, Scoggins M, Cheung YT, Ogg RJ, Pui C-H, Robison LL, Reddick WE, Hudson MM, Krull KR. Cerebellar volumes and neurocognitive outcomes in survivors of childhood acute lymphoblastic leukemia (ALL) treated with chemotherapy alone. SJCC Post-Doctoral Symposium, Memphis, TN, February 2, 2018.
246. Banerjee P, Rossi MG, Angheliescu DL, Mayhew A, Reger K, Phillips NS, Reddick-WE, Glass JO, Jacola LM, Robison LL, Pui C-H, Hudson MM, Krull KR. Anesthesia exposure, neurocognitive function, and neuroimaging outcomes in long-term survivors of childhood acute lymphoblastic leukemia. International Neuropsychological Society, 46th Annual Meeting, Washington, D.C., February 14-17, 2018.
247. Al-Fahad R, Yeasin M, Glass JO, Conklin HM, Jacola L, Reddick WE. Early imaging based predictive modeling of cognitive performance following therapy for childhood ALL. 6th Annual EECE Poster Competition, Memphis, TN, April 9, 2018.
248. Phillips NS, Glass JO, Banerjee P, Scoggins M, Cheung YT, Ogg RJ, Pui C-H, Robison LL, Reddick WE, Hudson MM, Krull KR. Cerebellar volumes and neurocognitive outcomes in survivors of childhood acute lymphoblastic leukemia (ALL) treated with chemotherapy alone. ICCTF, Cognition and Cancer Conference, Sydney, Australia, April 9-10, 2018.
249. Banerjee P, Rossi MG, Angheliescu DL, Mayhew A, Reger K, Phillips NS, Reddick-WE, Glass JO, Jacola LM, Robison LL, Pui C-H, Hudson MM, Krull KR. Anesthesia exposure, neurocognitive function, and neuroimaging outcomes in long-term survivors of childhood acute lymphoblastic leukemia. ICCTF, Cognition and Cancer Conference, Sydney, Australia, April 9-10, 2018.
250. Sabin ND, Cheung YT, Reddick-WE, Bhojwani D, Liu W, Glass JO, Brinkman TM, Hwang SN, Srivastava D, Pui C-H, Robison LL, Hudson MM, Krull KR. The impact of leukoencephalopathy on white matter tracts in the brains of long-term survivors of childhood acute lymphoblastic leukemia treated with chemotherapy only. International Society for Magnetic Resonance in Medicine, 26<sup>th</sup> Scientific Meeting, Paris, France, June 16-21, 2018.
251. Glass JO, Helton KJ, Reddick-WE. Alterations in cortical thickness with hydroxyurea therapy in children treated for sickle cell anemia. International Society for Magnetic Resonance in Medicine, 26<sup>th</sup> Scientific Meeting, Paris, France, June 16-21, 2018.
252. Guo, J, Han Y, Li Y, Reddick-WE. New microstructural asymmetries in the brain. International Society for Magnetic Resonance in Medicine, 26<sup>th</sup> Scientific Meeting, Paris, France, June 16-21, 2018.
253. Guo, J, Han Y, Li Y, Reddick-WE. Chemotherapy reduces microstructural asymmetry in the brain. International Society for Magnetic Resonance in Medicine, 26<sup>th</sup> Scientific Meeting, Paris, France, June 16-21, 2018.
254. Reddick-WE, Glass JO, Ji Q, Conklin H, Harreld J, Robinson G, Gajjar A. Changes in structural brain connectivity within the frontal lobes during cranial radiotherapy in children treated for medulloblastoma. 18<sup>th</sup> International Symposium on Pediatric Neuro-Oncology, Denver, CO, June 29 - July 3, 2018.
255. Jacola LM, Hall L, Pei D, Cheng C, Krull KR, Reddick WE, Pui C-H, Jeha S, Conklin HM. Impact of Intensified intrathecal (IT) therapy on acute and long-term neurocognitive outcomes in children with acute lymphoblastic leukemia (ALL). International Neuropsychological Society, 47<sup>th</sup> Annual Meeting, New York, NY, February 20-23, 2019.
256. Sabin ND, Banerjee P, Reddick WE, Liu W, Glass JO, Srivastava D, Robison LL, Hudson HM, Krull KR. Cortical thickness and neurocognitive performance in adult survivors of hodgkin lymphoma. International Neuropsychological Society, 47th Annual Meeting, New York, NY, February 20-23, 2019.
257. Sabin ND, Reddick WE, Banerjee P, Liu W, Glass JO, Srivastava D, Robison LL, Hudson HM, Krull KR. Leukoencephalopathy, quantitative MR imaging and neurocognitive performance in adult survivors of hodgkin lymphoma. American Society of Neuroradiology, 57<sup>th</sup> Annual Meeting, Boston, MA, May 18-23, 2019.

258. Guo J, [Reddick WE](#). Deep neural network processing of original DCE-MRI data for survival prediction. International Society for Magnetic Resonance in Medicine, 27<sup>th</sup> Scientific Meeting, Montreal, QC, Canada, May 11-16, 2019.
259. Guo J, [Reddick WE](#). Survival prediction from DCE-MRI kinetic parameters in patients with osteosarcoma using deep learning. International Society for Magnetic Resonance in Medicine, 27<sup>th</sup> Scientific Meeting, Montreal, QC, Canada, May 11-16, 2019.
260. Phillips NS, Kessler SR, Glass JO, Scoggins M, Cheung YT, Li W, Banerjee P, Ogg RJ, Pui C-H, Robison LL, [Reddick WE](#), Hudson MM, Krull KR. Functional connectivity of the cerebello-thalamo-cortical pathway in survivors of childhood acute lymphoblastic leukemia treated with chemotherapy-only. North American Symposium on Late Complications after Childhood Cancer, Atlanta, GA, June 20-22, 2019.
261. [Reddick WE](#), Glass JO, Song R, Pui CH, Jeha S. Less integrated and less efficient structural brain networks in children treated for ALL. International Society for Magnetic Resonance in Medicine, 28<sup>th</sup> Scientific Meeting, Sydney, NSW, Australia, April 18-23, 2020.
262. Glass JO, Sullivan JJ, Guo Y, Harreld JH, Li Y, Robinson GW, Gajjar A, [Reddick WE](#). Confirming outcomes of disrupted white matter integrity in an independent cohort of children treated for medulloblastoma. International Society for Magnetic Resonance in Medicine, 28<sup>th</sup> Scientific Meeting, Sydney, NSW, Australia, April 18-23, 2020.
263. Ji Q, Scoggins M, Edwards A, Glass JO, Brinkman T, Patay Z, [Reddick WE](#). Assessment of cerebello-thalamo-cortical (CTC) fiber pathways in post-surgical medulloblastoma patients using a CTC template. International Society for Magnetic Resonance in Medicine, 28<sup>th</sup> Scientific Meeting, Sydney, NSW, Australia, April 18-23, 2020.
264. Brinkmann TM, Krull KR, Scoggins MA, Li Z, Zou P, Glass JO, Ness KK, Sabin ND, Gajjar A, Armstrong GT, Robison LL, Hudson MM, [Reddick WE](#). Neural network integrity for facial affect recognition in survivors of medulloblastoma. 19th International Symposium on Pediatric Neuro-Oncology, Karuizawa, Nagano, Japan, June 21-24, 2020.
265. Hosseini SMH, Cheng C, Glass JO, [Reddick WE](#), Lu Z. Image clustering of brain tumor patients using a deep neural network. AACR Virtual Special Conference on Artificial Intelligence, Diagnosis, and Imaging, January 13-14, 2021.
266. Hosseini SMH, Cheng C, Glass JO, [Reddick WE](#), Lu Z. Image clustering of brain tumor patients using a deep neural network. St. Jude Postdoc Symposium, January 29, 2021.
267. Gandy K, Scoggins M, Phillips N, Jacola L, Pui C-H, Hudson MM, [Reddick WE](#), Krull KR. Altered brain activity in survivors of pediatric acute lymphoblastic leukemia with executive dysfunction. Cognitive Neuroscience Society 2021 Virtual, March 13-16, 2021.
268. [Reddick WE](#), Sullivan JJ, Glass JO, Guo Y, Harreld JH, Li Y, Robinson GW, Gajjar A, Merchant TE. Reproducibility study of disrupted white matter integrity and partial recovery in children treated for medulloblastoma. International Society for Magnetic Resonance in Medicine, 29<sup>th</sup> Scientific Meeting, Virtual, May 15-20, 2021.
269. Acharya S, Li Y, Phillips S, Alexander-Dodds L, Quaddoumi I, Vinitzky A, Upadhayaya SA, Robinson GW, [Reddick WE](#), Chiang J, Klimo P, Boop F, Ellison DW, Gajjar A, Conklin H, Merchant TE. Phase II study of hippocampal avoidance using proton therapy in pediatric low-grade glioma. ASCO Annual Meeting, June 4-8, 2021.
270. Acharya S, Guo Y, Li Y, Wang C, Gargone M, Ashford J, Faught A, [Reddick WE](#), Patay Z, Gajjar A, Conklin H, Merchant TE. Association between neurocognitive outcomes and radiation dose to the corpus callosum and hippocampus in children with medulloblastoma treated on a phase III study. ASTRO Annual Meeting, October 24-27, 2021.
271. Gandy K, Scoggins MA, Phillips N, Jacola LM, Pui C-H, Hudson MM, [Reddick WE](#), Krull KR. Functional brain activity associated with working memory in long-term survivors of pediatric acute lymphoblastic leukemia: sex-based differences. SIOP 2021 - 53<sup>rd</sup> Annual Congress of the International Society of Paediatric Oncology, October 21-24, 2021.

272. Reddick WE, Teague J, Song R, Glass JO, Jacola LM. Data-driven heatmap clustering approach to analyzing structural connectomes. International Society for Magnetic Resonance in Medicine, 31<sup>st</sup> Scientific Meeting, London, UK, May 7-12, 2022.
273. Glass JO, Sullivan JJ, Guo Y, Harreld JH, Li Y, Robinson GW, Gajjar A, Merchant TE, Reddick WE, Teague J, Song R, Jacola LM. Effect of radiation dose on the recovery of white matter integrity in children treated for medulloblastoma. International Society for Magnetic Resonance in Medicine, 31<sup>st</sup> Scientific Meeting, London, UK, May 7-12, 2022.
274. Song R, Hwang SN, Goode C, Storment D, Scoggins M, Abramson Z, Hillenbrand CM, Mandrell B, Krull K, Reddick WE. Assessment of fat fractions of tongues, pharyngeal walls, and soft palates by GOOSE and DIXON methods. International Society for Magnetic Resonance in Medicine, 31<sup>th</sup> Scientific Meeting, London, UK, May 7-12, 2022.
275. Song R, Glass JO, Reddick WE. Myelin water imaging and diffusion tensor imaging in pediatric acute lymphoblastic leukemia patients. International Society for Magnetic Resonance in Medicine, 31<sup>th</sup> Scientific Meeting, London, UK, May 7-12, 2022.
276. Holtrop JL, Glass JO, MacAfee S, Zhang S, Scoggins M, Gajjar A, Robinson GW, Reddick WE, Bag AK. Cerebellar damage, by medulloblastoma and related surgery, induces global cerebral microstructural abnormalities. International Society for Magnetic Resonance in Medicine, 31<sup>th</sup> Scientific Meeting, London, UK, May 7-12, 2022.
277. Song R, Glass JO, Robinson GW, Gajjar A, Merchant TE, Reddick WE. Perivascular space imaging during therapy for medulloblastoma. International Society for Magnetic Resonance in Medicine, 32<sup>nd</sup> Scientific Meeting, Toronto, Canada, June 3-8, 2023.
278. Glass JO, Liang J, Song R, Li Y, Robinson GW, Gajjar A, Merchant TE, Reddick WE. Therapy effects on the structural connectome of children treated for medulloblastoma. International Society for Magnetic Resonance in Medicine, 32<sup>nd</sup> Scientific Meeting, Toronto, Canada, June 3-8, 2023.
279. Raja R, Song R, Glass JO, Reddick WE. Associations of white matter connections with neurocognitive development in healthy children. International Society for Magnetic Resonance in Medicine, 32<sup>nd</sup> Scientific Meeting, Toronto, Canada, June 3-8, 2023.
280. VanGilder P, Gandy K, Zou P, Scoggins MS, Phillips NS, Jacola S, Pui CH, Hudson MM, Reddick WE, Krull KR, Sitaram R. 2023, Oct. 11-14, 2023. Front-parietal functional connectivity in survivors of pediatric acute lymphoblastic leukemia with working memory impairment. 55th Annual Congress of the International Society of Paediatric Oncology, Ottawa, CA, October 11-14, 2023.

## vii. Abstracts Submitted (0)

## 12. Presentations

### A. Oral Presentations (25)

1. Reddick WE, "Dynamic MR Imaging", SUN Medical Imaging/Visualization Seminar, Memphis, TN, 1991.
2. Reddick WE, "Quantitative MR Imaging", Graduate Research Seminar, Department of Electrical Engineering, The University of Memphis, 1991.
3. Reddick WE, "Quantitative MR Imaging – More than meets the eye", Graduate Research Seminar, Department of Electrical Engineering, The University of Memphis, 1993.
4. Reddick WE, "Dynamic Contrast-Enhanced MR Imaging of Osteosarcoma Response to Neoadjuvant Chemotherapy", Physics Seminar, Department of Radiology, University of Tennessee, Memphis, 1995.
5. Reddick WE, "Automated Image Segmentation Using a Self-Organized Artificial Neural Network", Memphis Pediatric Neurosciences Group, Memphis, TN, 1995.
6. Reddick WE, "Diagnostic Image and Signal Processing in a Clinical Environment", IEEE Student Section, Department of Electrical Engineering, The University of Memphis, 1995.

7. Reddick WE, "More Than Just a Pretty Picture", Faculty Seminar, St. Jude Children's Research Hospital, 1996.
8. Reddick WE, "Quantitative MR Imaging – More than a pretty picture", Graduate Research Seminar, Department of Electrical Engineering, The University of Memphis, 1999.
9. Reddick WE, "Quantifying Osteosarcoma Response", Tumor Board presentation, St. Louis Children's Hospital, St. Louis, MO, 2002.
10. Reddick WE, "Quantifying Neurostructural Correlates of Neurotoxicity", Research Seminar, Vanderbilt University Institute of Imaging Science, Nashville, TN, 2003.
11. Reddick WE, "Quantitative In-vivo Imaging of the Impact of Cancer Therapy on the Normal Pediatric Brain", Faculty Promotion Seminar, St. Jude Children's Research Hospital, 2005.
12. Reddick WE, "Quantitative MR Imaging and Cognitive Outcomes in Children Treated for Cancer", Psychosocial and Neurocognitive Consequences of Childhood Cancer: A symposium in tribute to Raymond Mulhern, Memphis, TN, 2006.
13. Reddick WE, "Quantitative Neuroimaging of Neurotoxicity in Children Treated with Methotrexate", International Primary Central Nervous System Lymphoma Group Meeting - Mechanisms and Measurements of Neurotoxicity in PCNSL Patients, Orlando, FL, 2006.
14. Reddick WE, "Consequences of Treatment on the Developing Brain", UCSD Human Development Series on Childhood Cancer, San Diego, CA, 2006.
15. Reddick WE, "Quantitative MR Assessment of Tumor Response to Cancer Therapy", Pre-Conference Scientific Review, Memphis Bioluminescence Symposium, 2008.
16. Reddick WE, "Quantitative MR Assessment of Osteosarcoma Response to Therapy", Osteosarcoma Working Group, Rady Children's Hospital, San Diego, CA, 2009.
17. Reddick WE, "Imaging Correlates of Clinical Treatment Side Effects", International Symposium on Pediatric Neuro-Oncology (ISPNO 2010), Educational Day, Vienna, Austria, 2010.
18. Reddick WE, "Quantitative Imaging of Structural Changes in the Developing Pediatric Brain in Response to Cancer and its Treatment", Faculty Promotion Seminar, St. Jude Children's Research Hospital, 2014.
19. Reddick WE, "Two-Sides of the Same Coin: Neuroimaging and Neurocognitive Performance in Children Treated for ALL", Pediatric Hematology & Oncology Seminar, Texas Children's Hospital, Houston, TX, 2018.
20. Reddick WE, "Two-Sides of the Same Coin: Neuroimaging and Neurocognitive Performance in Children Treated for ALL", Invited Speaker Seminar Series, The Hospital for Sick Children, Toronto, Canada, 2018.
21. Reddick WE, "Understanding the Capabilities and Limits of Diffusion Tensor Imaging", UTHSC Radiology Resident Seminar, Memphis, TN, 2019.
22. Reddick WE, "Understanding the Capabilities and Limits of Diffusion Tensor Imaging", University of Memphis, Biomedical Engineering Seminar, Memphis, TN, 2020.
23. Reddick WE, "Understanding the Capabilities and Limits of Diffusion Tensor Imaging", UTHSC Radiology Resident Seminar, Memphis, TN, 2021.
24. Reddick WE, "Neurocognitive Outcomes and Neuroimaging Correlates in ALL Patients/Survivors", PBII Symposium, Memphis, TN, 2021.
25. Reddick WE, "Imaging Structural Connectivity in the Human Brain and Challenges for Data Science", St. Jude Biomedical Data Science Symposium, Memphis, TN, 2022.
26. Reddick WE, "Understanding the Capabilities and Limits of Diffusion Tensor Imaging", UTHSC Radiology Resident Seminar, Memphis, TN, 2023.